

SEQUENCE LISTING

<110> Kinney, Anthony

<120> Hypoallergenic Transgenic Soybeans

<130> BB1432 US NA

<140>

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<150> 60/189,823

<151> 16 MARCH 2000

<160> 16

<170> Microsoft Office 97

<210> 1

<211> 1156

<212> DNA

<213> chimeric construct

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<211> 2970

<212> DNA

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 <211> 1600
 <212> DNA
 <213> Glycine max

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<210> 4
<211> 454
<212> PRT
<213> Glycine max

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      20              25              30

Glu Met Arg Val Leu Lys Ser His Gly Gly Arg Ile Phe Tyr Arg His
      35              40              45

Met His Ile Gly Phe Ile Ser Met Glu Pro Lys Ser Leu Phe Val Pro
      50              55              60

Gln Tyr Leu Asp Ser Asn Leu Ile Ile Phe Ile Arg Arg Gly Glu Ala
      65              70              75              80

Lys Leu Gly Phe Ile Tyr Asp Asp Glu Leu Ala Glu Arg Arg Leu Lys
      85              90              95

Thr Gly Asp Leu Tyr Met Ile Pro Ser Gly Ser Ala Phe Tyr Leu Val
      100             105             110

Asn Ile Gly Glu Gly Gln Arg Leu His Val Ile Cys Ser Ile Asp Pro
      115             120             125

Ser Thr Ser Leu Gly Leu Glu Thr Phe Gln Ser Phe Tyr Ile Gly Gly
      130             135             140

Gly Ala Asn Ser His Ser Val Leu Ser Gly Phe Glu Pro Ala Ile Leu
      145             150             155             160

Glu Thr Ala Phe Asn Glu Ser Arg Thr Val Val Glu Glu Ile Phe Ser
      165             170             175

Lys Glu Leu Asp Gly Pro Ile Met Phe Val Asp Asp Ser His Ala Pro
      180             185             190

Ser Leu Trp Thr Lys Phe Leu Gln Leu Lys Lys Asp Asp Lys Glu Gln
      195             200             205

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Gln Leu Lys Lys Met Met Gln Asp Gln Glu Glu Asp Glu Glu Glu Lys
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 Gln Thr Ser Arg Ser Trp Arg Lys Leu Leu Glu Thr Val Phe Gly Lys
 225 230 235 240
 Val Asn Glu Lys Ile Glu Asn Lys Asp Thr Ala Gly Ser Pro Ala Ser
 245 250 255
 Tyr Asn Leu Tyr Asp Asp Lys Lys Ala Asp Phe Lys Asn Ala Tyr Gly
 260 265 270
 Trp Ser Lys Ala Leu His Gly Gly Glu Tyr Pro Pro Leu Ser Glu Pro
 275 280 285
 Asp Ile Gly Val Leu Leu Val Lys Leu Ser Ala Gly Ser Met Leu Ala
 290 295 300
 Pro His Val Asn Pro Ile Ser Asp Glu Tyr Thr Ile Val Leu Ser Gly
 305 310 315 320
 Tyr Gly Glu Leu His Ile Gly Tyr Pro Asn Gly Ser Lys Ala Met Lys
 325 330 335
 Thr Lys Ile Lys Gln Gly Asp Val Phe Val Val Pro Arg Tyr Phe Pro
 340 345 350
 Phe Cys Gln Val Ala Ser Arg Asp Gly Pro Leu Glu Phe Phe Gly Phe
 355 360 365
 Ser Thr Ser Ala Arg Lys Asn Lys Pro Gln Phe Leu Ala Gly Ala Ala
 370 375 380
 Ser Leu Leu Arg Thr Leu Met Gly Pro Glu Leu Ser Ala Ala Phe Gly
 385 390 395 400
 Val Ser Glu Asp Thr Leu Arg Arg Ala Val Asp Ala Gln His Glu Ala
 405 410 415
 Val Ile Leu Pro Ser Ala Trp Ala Ala Pro Pro Glu Asn Ala Gly Lys
 420 425 430
 Leu Lys Met Glu Glu Glu Pro Asn Ala Ile Arg Ser Phe Ala Asn Asp
 435 440 445
 Val Val Met Asp Val Phe
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<210> 5
 <211> 494
 <212> DNA
 <213> Glycine max

<400> 5
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<210> 6
<211> 75
<212> PRT
<213> Glycine max

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<400> 6
Met Glu Lys Lys Ser Ile Ala Gly Leu Cys Phe Leu Phe Leu Val Leu
1 5 10 15

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Phe Val Ala Gln Glu Val Val Val Gln Thr Glu Ala Lys Thr Cys Glu
20 25 30

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Asn Leu Ala Asp Thr Tyr Arg Gly Pro Cys Phe Thr Thr Gly Ser Cys
35 40 45

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Asp Asp His Cys Lys Asn Lys Glu His Leu Leu Arg Gly Arg Cys Arg
50 55 60

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Asp Asp Phe Arg Cys Trp Cys Thr Lys Asn Cys
65 70 75

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<210> 7
<211> 30
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: P34 gene primer

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<210> 8
<211> 30
<212> DNA
<213> Glycine max

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<220>
<223> Description of Artificial Sequence: P34 gene primer

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<210> 9
<211> 701
<212> DNA
<213> Glycine max

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 catatataag aataataata aataaataaa tattttctata caaataaagg ttacgtaatg 600
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<210> 10
 <211> 119
 <212> PRT
 <213> Glycine max

<400> 10
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 Ile Leu Phe Ile Ser Met Val Ser Ser Ser Ser His Tyr Asp Pro Gln
 20 25 30
 Pro Gln Pro Ser His Val Thr Ala Leu Ile Thr Arg Pro Ser Cys Pro
 35 40 45
 Asp Leu Ser Ile Cys Leu Asn Ile Leu Gly Gly Ser Leu Gly Thr Val
 50 55 60
 Asp Asp Cys Cys Ala Leu Ile Gly Gly Leu Gly Asp Ile Glu Ala Ile
 65 70 75 80
 Val Cys Leu Cys Ile Gln Leu Arg Ala Leu Gly Ile Leu Asn Leu Asn
 85 90 95
 Arg Asn Leu Gln Leu Ile Leu Asn Ser Cys Gly Arg Ser Tyr Pro Ser
 100 105 110
 Asn Ala Thr Cys Pro Arg Thr
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<210> 11
 <211> 396
 <212> DNA
 <213> Glycine max

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<210> 12
 <211> 131
 <212> PRT
 <213> Glycine max

<400> 12
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Gly Asn His Leu Thr His Ala Ala Ile Ile Gly Gln Asp Gly Ser Val
20 25 30

Trp Leu Gln Ser Thr Asp Phe Pro Gln Phe Lys Pro Glu Ile Thr
35 40 45

Ala Ile Met Asn Asp Phe Asn Glu Pro Gly Ser Leu Ala Pro Thr Gly
50 55 60

Leu Tyr Leu Gly Gly Thr Lys Tyr Met Val Ile Gln Gly Glu Pro Gly
65 70 75 80

Ala Val Ile Arg Gly Lys Lys Gly Pro Gly Gly Val Thr Val Lys Lys
85 90 95

Thr Gly Ala Ala Leu Ile Ile Gly Ile Tyr Asp Glu Pro Met Thr Pro
100 105 110

Gly Gln Cys Asn Met Val Val Glu Arg Leu Gly Asp Tyr Leu Ile Asp
115 120 125

Gln Gly Tyr
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<210> 13
<211> 396
<212> DNA
<213> Glycine max

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<210> 14
<211> 131
<212> PRT
<213> Glycine max

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Gly Asn His Leu Thr His Ala Ala Ile Ile Gly Gln Asp Gly Ser Val
20 25 30

Trp Ala Gln Ser Thr Asp Phe Pro Gln Phe Lys Pro Glu Glu Ile Thr
35 40 45

Ala Ile Met Asn Asp Phe Asn Glu Pro Gly Ser Leu Ala Pro Thr Gly
50 55 60

Leu Tyr Leu Gly Gly Thr Lys Tyr Met Val Ile Gln Gly Glu Pro Gly
65 70 75 80

Ala Val Ile Arg Gly Lys Lys Gly Pro Gly Gly Val Thr Val Lys Lys
85 90 95

Thr Gly Ala Ala Leu Ile Ile Gly Ile Tyr Asp Glu Pro Met Thr Pro
100 105 110

Gly Gln Cys Asn Met Val Val Glu Arg Pro Gly Asp Tyr Leu Ile Asp
115 120 125

Gln Gly Tyr
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<210> 15

<211> 1746

<212> DNA

<213> Glycine max

<400> 15

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Ile Gln Lys Leu Asn Ala Leu Lys Pro Gly Asn Arg Ile Glu Ser Glu
 35 40 45
 Gly Gly Leu Ile Glu Thr Trp Asn Pro Asn Asn Lys Pro Phe Gln Cys
 50 55 60
 Ala Gly Val Ala Leu Ser Arg Cys Thr Leu Asn Arg Asn Ala Leu Arg
 65 70 75 80
 Arg Pro Ser Tyr Thr Asn Gly Pro Gln Glu Ile Tyr Ile Gln Gln Gly
 85 90 95
 Lys Gly Ile Phe Gly Met Ile Tyr Pro Gly Cys Ser Ser Thr Phe Glu
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 Glu Pro Gln Gln Pro Gln Gln Arg Gly Gln Ser Ser Arg Pro Gln Asp
 115 120 125
 Arg His Gln Lys Ile Tyr Asn Ser Arg Glu Gly Asp Leu Ile Ala Val
 130 135 140
 Pro Thr Gly Val Ala Trp Trp Met Tyr Asn Asn Glu Asp Thr Pro Val
 145 150 155 160
 Val Ala Val Ser Ile Ile Asp Thr Asn Ser Leu Glu Asn Gln Leu Asp
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 Gln Met Pro Arg Arg Phe Tyr Leu Ala Gly Asn Gln Glu Gln Glu Phe
 180 185 190
 Leu Lys Tyr Gln Gln Glu Gln Gly Gly His Gln Ser Gln Lys Gly Lys
 195 200 205
 His Gln Gln Glu Glu Glu Asn Glu Gly Gly Ser Ile Leu Ser Gly Phe
 210 215 220
 Thr Leu Glu Phe Leu Glu His Ala Phe Ser Val Asp Lys Gln Ile Ala
 225 230 235 240
 Lys Asn Leu Gln Gly Glu Asn Glu Gly Glu Asp Lys Gly Ala Ile Val
 245 250 255
 Thr Val Lys Gly Gly Leu Ser Val Ile Lys Pro Pro Thr Asp Glu Gln
 260 265 270
 Gln Gln Arg Pro Gln Glu Glu Glu Glu Glu Glu Asp Glu Lys Pro
 275 280 285
 Gln Cys Lys Gly Lys Asp Lys His Cys Gln Arg Pro Arg Gly Ser Gln
 290 295 300
 Ser Lys Ser Arg Arg Asn Gly Ile Asp Glu Thr Ile Cys Thr Met Arg
 305 310 315 320
 Leu Arg His Asn Ile Gly Gln Thr Ser Ser Pro Asp Ile Tyr Asn Pro
 325 330 335
 Gln Ala Gly Ser Val Thr Thr Ala Thr Ser Leu Asp Phe Pro Ala Leu
 340 345 350

Ser Trp Leu Arg Leu Ser Ala Gly Phe Gly Ser Leu Arg Lys Asn Ala
 355 360 365
 Met Phe Val Pro His Tyr Asn Leu Asn Ala Asn Ser Ile Ile Tyr Ala
 370 375 380
 Leu Asn Gly Arg Ala Leu Ile Gln Val Val Asn Cys Asn Gly Glu Arg
 385 390 395 400
 Val Phe Asp Gly Glu Leu Gln Glu Gly Arg Val Leu Ile Val Pro Gln
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 Asn Phe Val Val Ala Ala Arg Ser Gln Ser Asp Asn Phe Glu Tyr Val
 420 425 430
 Ser Phe Lys Thr Asn Asp Thr Pro Met Ile Gly Thr Leu Ala Gly Ala
 435 440 445
 Asn Ser Leu Leu Asn Ala Leu Pro Glu Glu Val Ile Gln His Thr Phe
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 Asn Leu Lys Ser Gln Gln Ala Arg Gln Ile Lys Asn Asn Asn Pro Phe
 465 470 475 480
 Lys Phe Leu Val Pro Pro Gln Glu Ser Gln Lys Arg Ala Val Ala
 485 490 495